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R-585-3-1-13

ENVIRONMENTAL PRIORITIES INITIATIVE
SITE INSPECTION
OF
WATSON-STANDARD COMPANY
PREPARED UNDER

TDD NO. F3-9008-10
EPA DSN NO. PA-2690
FACILITY ID NO. PAD004397030
CONTRACT NO. 68-01-7346

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JULY 16, 1991

NUS CORPORATION
SUPERFUND DIVISION

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1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-7346. This specific report was prepared in accordance with Technical Directive Document No. F3-9008-10 for the Watson-Standard Company site, located in Harwick, Allegheny County, Pennsylvania.

1.2 Scope of Work

NUS FIT 3 was tasked to conduct an Environmental Priorities Initiative (EPI) site inspection for the subject site.

1.3 Summary

The facility is located in Harwick, Allegheny County, Pennsylvania. The area of concern includes the area outside and west of the warehouse.

The Watson-Standard Company has been owned by the Watson family since its inception in 1902. The facility has manufactured house paints and coatings for the metal industry and the food-container industry. The majority of finished product is acrylic and vinyl white and clear acrylic paints and coatings. Watson-Standard manufactures some lead-based paints; however, iron-oxide-based pigments are being used to replace the lead-based pigments.

From 1902 until 1967, the company was located at the location now occupied by Three Rivers Stadium. Between 1967 and 1968, the company moved to its current location in Harwick, Pennsylvania. After moving, Watson-Standard established an underground solvent storage tank farm. This farm was utilized until late 1985, when Watson-Standard excavated and removed the tanks. During this process, the Pennsylvania Department of Environmental Resources (PA DER) inspected the facility and sampled subsurface water from the trenches where the tanks were located. Sample results revealed organic contaminants.

Watson-Standard contracted REMCOR Remedial Corporation to perform a subsurface soil study. Organic contaminants were detected in the excavated soil samples but not in adjacent or underlying soil samples. No state or federal remediation was necessary for the low levels of contaminants detected.

Before the underground solvent storage tanks were removed, Watson-Standard established an above-ground solvent tank farm.

In approximately 1967, Watson-Standard established a hazardous waste drum storage area outside the warehouse's western wall, approximately 20 feet south of the water tank and the pump house. Drums of liquid and solid wastes were stored on metal plates without additional containment structures. In the summer of 1988, an indoor hazardous waste storage area was established inside the warehouse on the bare concrete floor without containment structures, in accordance with a PA DER request.

In 1967 or 1968, an empty drum storage area was established outside the warehouse's northwestern wall. This area was used for storage of cleaned drums. On August 15, 1990, this area was moved indoors.

Between August 1 and 30, 1990, Watson-Standard installed a concrete pad along the warehouse's western wall. The pad, extending the entire length of the building, was constructed over the former empty drum storage area and the former underground storage tank area. The pad was originally constructed with a designated empty drum storage area. This area was secured with an eight-inch-high concrete containment berm and two sump pumps. According to Daniel Eakin, regulatory affairs coordinator for Watson-Standard, no drums were ever stored in this area. The concrete containment berm will be removed because the empty drum storage area has been moved indoors. Another eight-inch containment berm with a sump pump was constructed along the southern and southeastern edge of the pad to prevent potential spills during product delivery and/or pickup.

Approximately one foot of soil was excavated before the cement pad was poured. Some of the soil was used to build up the sides of the pad's foundation. The majority of the soil, however, was placed in a pile outside the fenced portion of the company's property. The soil overflowed down the hillside that slopes toward the railroad tracks located south of the facility.

Several work stations are located on site. Hazardous wastes are temporarily accumulated in these areas until the wastes can be transferred to the hazardous waste drum storage area. The drums are covered with metal lids. Hazardous waste transportation routes have been established to facilitate the transfer of wastes from one area to another.

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Small leaks and spills that occur at the facility are cleaned with oil-dry (a sand-like absorbent) or rags. When this material is dry, it is disposed with the solid hazardous wastes.

On August 6, 1980, the Watson-Standard Company filed a Notification of Hazardous Waste Activity with EPA for the subject site. On November 12, 1980, the company submitted a Part A Hazardous Waste Permit Application and a General Information Form 1. On October 9, 1980, EPA assigned the facility EPA I.D. No. PAD004397030. Identified hazardous wastes that the facility could handle were classified K078 and K079. In July 1981, these codes were temporarily suspended and replaced with D001. The process code that the facility could use was S01 (container: barrel, drum) at a design capacity of 4,125 gallons.

The facility has been inspected frequently by PA DER.

Watson-Standard was not required to submit a Part B application because it was considered to be only a generator of hazardous waste. A Notification of Hazardous Waste Activity was resubmitted in September 1983.

Residents within a 4-mile radius of the facility obtain water from 11 public water suppliers. Water sources include groundwater and surface water. Approximately 2,762 persons rely on private wells for potable water supply. The nearest home well is located approximately 2,000 feet north of the facility. Approximately 16,182 persons rely on groundwater as a potable source within a 4-mile radius of the facility.

On January 17, 1990, NUS FIT 3 conducted an EPI preliminary assessment at the Watson-Standard Company. On October 16, 1990, NUS FIT 3 conducted an EPI site inspection at the site. Surface and subsurface soil samples were taken. Sample results revealed lead (245 ppm), naphthalene (up to 2,000 ppb), 2-methylnaphthalene (up to 280 ppb), phenanthrene (190 ppb), bis(2-ethyhexyl) phthalate (up to 510 ppb), chrysene (up to 120 ppb), ethylbenzene (up to 98 ppb), and total xylenes (up to 27 ppb) in subsurface soil samples. Isophorone was detected up to 3,500 ppb in surface soil samples.

2.0 THE SITE

2.1 Location

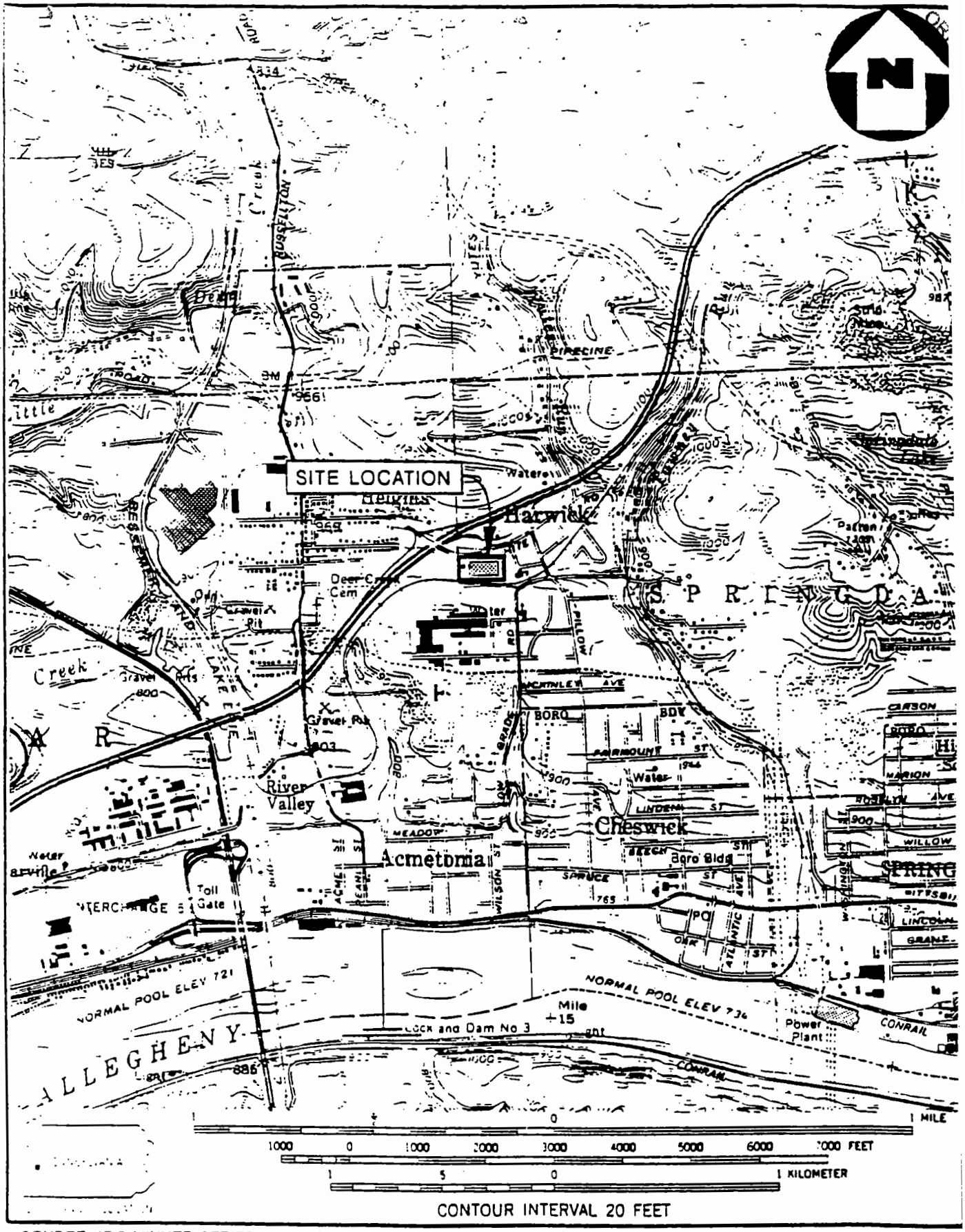
The Watson-Standard Company is located in Harwick, Springdale Township, Allegheny County, Pennsylvania (see figure 2.1, page 2-2). The site may be found at the intersection of 48° 25' 00" north latitude and 79° 32' 55" west longitude on the New Kensington West, 7.5 minute series, United States Geological Survey (U.S.G.S.) topographic map. The site is 8-1/2 inches west and 9-3/4 inches north from the southeastern corner of the New Kensington West topographic map.[1]

2.2 Site Layout

The Watson-Standard Company is located in Harwick, Allegheny County, Pennsylvania. The property is surrounded by a fence with a locked gate. A rectangular manufacturing building is located inside the fenced area. This building, which is approximately 203 by 366 feet in size, is divided into 3 areas: an administrative and laboratory area, a manufacturing area, and a warehouse storage area (see figure 2.2, page 2-3). The easternmost section of the building contains general offices, storage areas, a laboratory, and a finished-product storage tank room that contains seven 1,500-gallon tanks.[2,3]

The manufacturing area, located in the southern half of the middle of the building, consists of a tinting/mixing room and a filling room.[2,3] The tinting/mixing room contains 2 varnish tanks, a 500-gallon aluminum paint tank, a specialty color tinting area, a sand mill area, and a tank and drum washing area; one drum contains solvent/paint wastes, and the other drum contains rag and filter wastes.[2,3] The filling room contains eight mixing tanks that formerly contained materials used in the manufacture of water-based house paint.[2,3]

The remainder of the building is a warehouse used for storage. Finished product, empty drums, and obsolete raw materials are stored north of the manufacturing area. Raw materials are stored in the westernmost section of the building.[2,3]



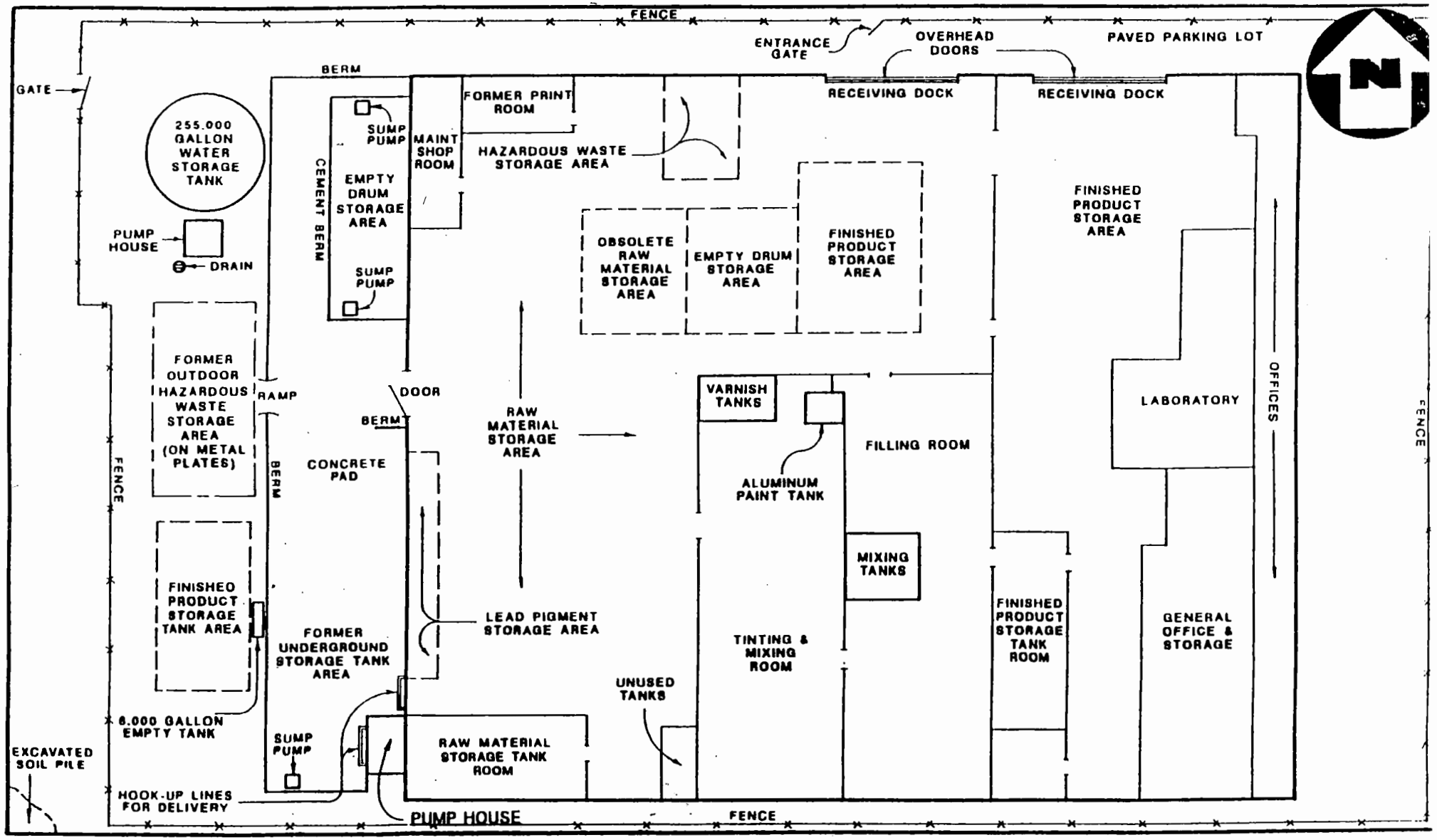
SOURCE: (7.5 MINUTE SERIES) U.S.G.S. NEW KENSINGTON, PA., QUAD.

SITE LOCATION MAP

WATSON STANDARD COMPANY

SCALE 1: 24000

FIGURE 2.1



SITE SKETCH

WATSON STANDARD COMPANY

(NO SCALE)

FIGURE 2.2

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A hazardous waste storage area is located north of the finished-product, empty drum, and obsolete raw material storage area. The hazardous waste storage area consists of 5 rows of 55-gallon drums. A maintenance shop room and a room formerly used as a print shop are located in the northwestern corner of the building. A raw material storage tank room is located in the southwestern corner of the building. Six 6,000-gallon tanks are located in this room.[2,3]

The overhead doors for a shipping dock and for a receiving dock are located along the warehouse's northern wall. Another overhead door is located in the center of the warehouse's western wall. A lead-pigment storage area is also located against this wall. Two inactive fiberglass tanks, which formerly contained materials used in the manufacture of water-based house paints, are located west of the manufacturing area.[2,3]

Several important features are located in the outside western yard of the warehouse, including a 255,000 gallon water tank, 6 finished product storage tanks, a series of hook-up lines for delivery, an empty 6,000-gallon tank, a 65- by 200-foot concrete pad (8 inches thick) that covers the former empty drum storage and the former underground storage tank areas, and a large pile of excavated soil.[2,4,5]

The 255,000-gallon water tank is located approximately 50 feet west of the empty drum storage area. A pump house with a diesel engine inside is located adjacent to and south of the water tank. Approximately 20 feet south of the pump house is the former hazardous waste drum storage area. Approximately 10 feet south of the former hazardous waste storage area are six 6,000-gallon above-ground finished-product storage tanks. These tanks are contained by a cement pad and a berm designed to hold 12,000 gallons.[2,3]

Twelve solvent and raw material hook-up lines, 2 clear and white finished-product hook-up lines, 3 pipes of unknown origin and capacity, and 1 finished-product hook-up line are located against the southwestern tip of the warehouse wall and originate from a pump house. These hook-up lines are designed to deliver raw materials to indoor storage tanks or extract finished product into tank trucks for delivery.[2,3]

An empty 6,000-gallon tank is located between the western edge of the concrete pad and the above-ground finished product storage tank's eastern containment berm.[5]

The empty drum storage area was established in 1967 or 1968 along the warehouse's northwestern wall. Cleaned drums were stacked on an unlined gravel surface pending removal. On August 15, 1990, Watson-Standard relocated the empty drum storage area inside the warehouse.[4,5,6]

An underground tank farm was formerly located between the above-ground tank farm and the southwestern corner of the warehouse. The underground tank farm was established in 1967 or 1968. Seven 6,000-gallon tanks were located approximately 12 feet below the ground's surface. These tanks stored solvents and aromatic hydrocarbons that were used in product formation. All tanks were removed and disposed in late 1985 by the Western Pennsylvania Construction Company, after the above-ground tank farm was established.[3]

A concrete pad was constructed between August 1 and 30, 1990 with a designated empty drums storage area. This area was secured with an eight-inch-high concrete containment berm and two sump pumps. Another eight-inch-high containment berm and a sump pump were constructed along the pad's southern and southeastern edges to safeguard against potential spills.[4,5,6]

A large pile (110 by 30 feet in size) of excavated soil was located approximately 150 feet southwest of the southwestern corner of the plant fence. The light brown soil overflowed approximately 50 feet down the hillside that slopes toward the railroad tracks located south of the facility.[4,5,6]

The facility is bordered to the south by railroad tracks. A tree line slopes approximately 10 feet between the southern property line and the railroad tracks, which are topographically lower. It is presumed that runoff from the southwestern portion of the property would drain to the southwest from this property line. Pennsylvania State Route 28 lies west of the tank farm. A parking lot and Hite Road are located north of the property. Residences are east of the facility.[1,2]

2.3 Ownership History

The Watson family has owned the company since its inception in 1902. The current family owner is Henry Watson, III.[3]

2.4 Site Use History

The Watson-Standard Company was established in 1902 by Henry Watson. From 1902 until 1967, the company was located at Three Rivers Stadium. Between 1967 and 1968, the company moved to its current location in Harwick, Pennsylvania. Watson-Standard purchased the building from an unknown furniture manufacturing company. According to Dean Reed, Watson-Standard's regulatory specialist, all drain units were sealed upon purchase of the building in 1968.[3]

Between 1902 and 1984, the company manufactured house paints. In 1963, the company began to manufacture coatings for the metal industry and the food-container industry. The company also operated the Specialty Keller Business, which manufactured small quantities of product for specialty businesses.[3]

Between 1986 and 1987, the company operated a still to recover the solvents used in the tank-cleaning process.[3]

Currently, the company manufactures paint products and industrial coatings. Paint products are sent to paint dealers and stores for resale. Industrial coatings are sold to the metal-coating industry in 5- and 55-gallon containers. The majority of finished product is acrylic and vinyl white and clear acrylic paints and coatings. These products are transported by bulk tank trucks.[3]

The company manufactures some lead-based paints; however, the concentration of lead in pigments and the number of lead-based paints manufactured have been greatly reduced within the last few years. Watson-Standard is starting to use iron-oxide-based pigments as a replacement for lead-based pigments.[3]

2.5 Permit and Regulatory Action History

On August 6, 1980, the Watson-Standard Company filed a Notification of Hazardous Waste Activity with EPA for the subject site.[7] On November 12, 1980, the company submitted a Part A Hazardous Waste Permit Application and a General Information Form 1 to EPA for the subject site.[8,9] On October 9, 1980, EPA assigned the facility I.D. No. PAD004397030 (see appendix C).[10]

In the Notification of Hazardous Waste Activity, Watson-Standard classified itself as a generator and a treatment, storage, or disposal (TSD) facility of hazardous wastes. Hazardous wastes from specific sources were characterized as K078 and K079 (ignitable and toxic).[7] The Part A application characterized the facility as storing approximately 4,125 gallons of hazardous wastes in containers (barrel, drum, etc.).[8]

On January 20, 1981, EPA sent a letter regarding missing information on the company's Part A submission. The Part A was to be resubmitted to EPA by February 19, 1981.[11] On February 4, 1981, EPA acknowledged the company's Part A resubmission and accepted this information as an initial qualification for interim status.[12]

On July 9, 1981, Watson-Standard received a letter from EPA stating that paint waste codes K078 and K079 had been temporarily suspended from regulation as a listed hazardous waste.[13] Watson-Standard acknowledged the EPA letter and responded on August 27, 1981 that the wastes generated at the facility exhibited the characteristics of ignitability as defined in Code 40 of the Federal Regulations, Part 261.[14]

On September 10, 1981, EPA prepared a Conditions of Operation During Interim Status Form for Watson-Standard. Identified hazardous wastes that the facility could handle were classified as D001 (ignitable). The process code the facility could use was identified as S01 (container: barrel, drum, etc.), at a design capacity of 4,125 gallons.[15]

PA DER inspected the facility on November 23, 1981 and sent a Notice of Violation to Watson-Standard on November 27, 1981. Numerous violations were noted, including the lack of a Preparedness, Prevention, or Contingency Plan, posted warning signs, inspection schedules, training programs, spill control programs and equipment, written operation records, a closure plan and cost estimate, and a weekly inspection record.[16]

On February 18, 1983, PA DER formally requested a Part B application from Watson-Standard.[17] On September 27, 1983, Watson-Standard asked to withdraw its Part A Hazardous Waste Permit Application and remain only a generator of hazardous waste.[18] The company resubmitted a Notification of Hazardous Waste Activity in September regarding a change of general information.[19]

On March 14, 1986, PA DER sent a Notice of Violation to Watson-Standard regarding hazardous waste accumulation and labeling.[20]

In late 1985, Watson-Standard contracted with the Western Pennsylvania Construction Company to remove and dispose the underground storage tanks located outside the western warehouse wall. This action was initiated only after the above-ground tank farm was established.[3]

During the final excavation process, a PA DER inspector arrived on site to perform an annual inspection on the outdoor hazardous waste drum storage area. The PA DER inspector observed liquid in the trenches and obtained a sample for analysis.[21] According to Watson-Standard employees, this liquid was the result of several days of rain. PA DER sent the sample results to Watson-Standard on March 30, 1986.[3] The results identified xylene (8 mg/l), trimethylbenzene isomers (6 mg/l), and naphthalene (1 mg/l). Trimethylcyclohexanone and trimethlypentanediol were also detected and estimated to be between 20 and 200 mg/l (see appendix C).[22]

As a result of these findings, PA DER requested that Watson-Standard evaluate the vertical and areal extent of contamination in the area.[21] Watson-Standard contracted REMCOR Remedial Corporation to perform a subsurface soil study.[3] The field investigation was initiated on May 8, 1986. Eight shallow test borings were drilled within and adjacent to the tank excavation area. Six soil samples were analyzed for purgable aromatics; a water sample taken from one of the borings was analyzed for benzene, toluene, and xylene (see appendix D).[3,23]

The soil sample taken from the backfill material of the excavated tank area revealed xylene at 3.9 ppm; the subsurface water sample revealed xylene at 4.5 ppm. Benzene was revealed at 162 ppb and tetrachloroethylene was found at 675 ppb in the subsurface water sample. No contaminants were detected in the remaining five soil samples from beneath and adjacent to the excavated tank area.[23]

PA DER was sent a copy of the REMCOR report.[3] On July 21, 1986, PA DER sent a letter to Watson-Standard regarding the REMCOR subsurface contaminant report. PA DER concluded that soil contamination was minimal and that no removal action was necessary. The site was to be backfilled and graded as planned.[24]

An EPA interoffice memo, dated July 29, 1986, stated that PA DER took action to resolve the violations noted during the November RCRA inspection and that EPA would continue to monitor state activity regarding resolution of these violations.[25]

Another EPA interoffice memo, dated April 7, 1987, stated that no further action under RCRA was required for the facility.[26] The facility discontinued its use of the still in 1987.[3]

On February 9, 1988, PA DER prepared a hazardous waste inspection report for the facility. At that time, the current waste-handling method included on-site reuse and reclamation by a solvent recovery/distillation unit (in 55-gallon batches) and off-site use. The amount of hazardous waste produced included approximately thirty 55-gallon drums per month. The types of hazardous waste produced included F003 [waste xylene and methyl-isobutyl ketone (MIBK)]. The hazardous wastes were transported off site by a contracted waste hauler. The report also listed several containment and labeling violations.[27] According to Watson-Standard, drums of hazardous waste were stored outside on metal plates without containment.[3] In the PA DER report, the drums were reported to be stored on bare ground without containment.[27]

As a result of the February 9, 1988 inspection, PA DER generated a Notice of Violation, dated February 16, 1988. Several violations (including the aforementioned) regarding the lack of accumulation dates on waste drums and container management were noted. The facility was given 15 days to comply.[28]

Watson-Standard, as requested by PA DER, moved the hazardous waste drum area inside in the summer of 1988.[3]

On January 9, 1989, PA DER prepared a hazardous waste inspection report for the facility. The current waste-handling method had been limited to off-site disposal by incineration. Approximately 10,000 pounds of waste code F003 were produced per month at the facility. Wastes were transported off site by a certified waste hauler and delivered to Systech, in Pauling, Ohio, where the wastes were blended with fuel and eventually incinerated. Several violations were noted by PA DER, including incomplete manifests, unavailable and undated manifest copies, manifest discrepancies, and no containment for the hazardous drum storage area.[29]

Watson-Standard was sent a Notice of Violation on January 13, 1989 regarding the violations that were identified during the January 9, 1989 inspection. Watson-Standard's compliance to the Solid Waste Management Act was expected within 15 days.[30]

An EPA interoffice memo, dated March 30, 1989, stated that PA DER took appropriate enforcement action and that EPA would continue to monitor the state's activities regarding the facility.[31]

On January 17, 1990, NUS FIT 3 conducted an EPI preliminary assessment at the facility. On October 16, 1990, the FIT conducted an EPI site inspection at the facility.[2,5]

2.6 Remedial Action to Date

According to Mr. Reed, there have been no spills outside the warehouse, but several small leaks or spills occurred inside the warehouse. These spills were cleaned with oil-dry (a sand-like absorbent) or rags. The cleaning materials were disposed with the solid hazardous wastes D001 or F003.[3]

From 1967 until 1985, Watson-Standard utilized an underground tank farm for solvent storage. In late 1985, Watson-Standard contracted with the Western Pennsylvania Construction Company to remove and dispose the underground storage tanks. This action was initiated after the above-ground storage tanks were established.[3]

Following a PA DER request for a soil contamination study, soil and subsurface water samples were taken from the excavated area. Several synthetic organic chemicals were detected; however, no state or federal remedial action was deemed necessary.[21,22,23,24,25]

Watson-Standard stored drums of hazardous waste in the yard west of the warehouse and south of the water and pump house. It is not known when this practice was initiated.[3] According to a February 9, 1988 PA DER hazardous waste inspection report, the drums were stored on bare ground with no containment structures.[27] In the summer of 1988, the hazardous waste drum storage area was moved indoors to its current location.[3]

Between August 1 and 30, 1990, Watson-Standard Company constructed an eight-inch-thick concrete containment pad outside the warehouse's western wall. This pad, extending 65 feet from the warehouse's western wall, traverses the length of the building. The pad, constructed over the former empty drum storage and former underground storage tank areas, was originally constructed with a designated empty drum storage area. This area was secured with an eight-inch-high concrete containment berm and was fitted with two sump pumps. However, because the empty drum storage area was relocated inside the warehouse, this berm will be removed and the sumps will be filled with concrete. Another eight-inch-high containment berm and sump pump were constructed along the pad's southern and southeastern edges. These will remain in place to safeguard against potential spills during production, delivery, and/or pickup.[4,5,6]

According to Michael Caruso, executive vice president for Watson-Standard, approximately one foot of soil was excavated before the cement pad was poured.[32] Some of the excavated soil was used to build up the sides of the cement pad's foundation. The majority of the soil, however, was placed in a pile approximately 150 feet southwest of the southwestern corner of the facility's fence. The soil pile, approximately 110 by 50 feet in size, overflowed approximately 50 feet down the hillside that slopes toward the railroad tracks located south of the facility.[5]

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

Residents within a four-mile radius of the site rely on groundwater and surface water sources for drinking water. The majority of the population within the study area is supplied by 11 public water suppliers. Those residents not served by one of these public suppliers are assumed to maintain private wells or springs for their drinking water needs. Approximately 2,762 persons rely on private wells for potable water supply (based on a house count times 2.6 persons per house in Allegheny County). Approximately 16,182 persons rely on groundwater within a 4-mile radius of the facility.[1,33,34]

The area containing the site is served by the Springdale Township Municipal Water Works (STMWW). STMWW serves two areas of Springdale Township: the eastern developed portion of the township and the western developed portion of the township. The eastern and western portions of the STMWW service area are interconnected by a transmission main. STMWW supplies water to a total of approximately 600 connections or billing accounts. The Springdale Borough Municipal Water Works (SBMWW) supplies water to about 46 or 47 of these connections in the eastern part of the STMWW service area, and the Harman Township Municipal Authority (HTMA) supplies water to the remaining connection in the eastern and western parts of the STMWW service area.[34,35]

SBMWW supplies water to the borough of Springdale, which is located southeast of the site, and to STMWW. The source of water consists of five wells located northeast of the intersection of Colfax Avenue and Railroad Street within the borough. These wells are located about 1.8 miles southeast of the site. The wells are approximately 60 feet deep and draw from the sand and gravel of the alluvial deposits, along the northern bank of the Allegheny River. The population served by SBMWW is 5,000.[1,33,36,37,38]

The Cheswick Water Works (CWW) supplies water to the borough of Cheswick and to six connections in Springdale Township. The source of water consists of two wells near the Allegheny River located about 1.3 miles southeast of the site. The wells are each 45 feet deep and are in the sand and gravel of the alluvial valley fill deposits. Each well has a pumping capacity of 350 gallons per minute (gpm), and the average water production rate for both wells combined is about 600 gpm. A population of 2,340 is served by CWW. CWW has emergency interconnections with HTMA and SBMWW.[33,35,36,38,39]

HTMA supplies water to two portions of Harmar Township and to STMWW. One of the areas served is the eastern part of Harmar Township, immediately west and south of the site. The other area served is a portion of the township more than two miles southwest of the site. The source of supply consists of three wells in Acmetonia, along the Allegheny River. These wells are located approximately 0.8 mile south of the site. The wells are about 65 feet deep and produce water from the sand and gravel of the alluvial deposits, along the northern bank of the Allegheny River. A population of 3,800 is served by HTMA. HTMA also has emergency interconnections with CWW and the Municipal Authority of the Borough of Oakmont (MABO) and can supply water to SBMWW through the STMWW system if necessary.[1,35,36,38,39,40,41,42]

MABO supplies water to the borough of Oakmont, portions of Plum and Verona Boroughs, and portions of Harmar, Indiana, West Deer, and Penn Hills Townships. The sole source of supply consists of a surface water intake located 0.25 mile upstream of the Hulton Bridge near mile point 13.3 on the Allegheny River. This intake is located about 2.2 miles southwest and approximately 2.5 stream miles downstream of the site. A total population of 55,000 is served by MABO. MABO does not supply water to or receive water from other public water suppliers on a regular basis. The authority has an emergency interconnection with HTMA that can supply the HTMA system or receive partial supplies for the MABO system. MABO has an interconnection with the Plum Borough Municipal Authority (PBMA) that allows water to be transferred from PBMA to MABO but not from MABO to PBMA.[1,34,36,42,43]

The Fox Chapel Water Authority (FCWA) serves portions of the borough of Fox Chapel and the townships of O'Hara and Indiana. A surface intake near mile point 10.7 on the Allegheny River provides all water under normal circumstances. This intake is located about 4.4 miles southwest and approximately 5.1 stream miles downstream of the site. FCWA maintains an interconnection with the city of Pittsburgh for additional supplies if needed. A population of 16,300 is served by FCWA.[1,33,36,44]

The Fawn-Frazer Municipal Water Authority (FFMWA) serves portions of Frazer Township located within the study area. All water is purchased from the borough of Brackenridge, which maintains a surface intake on the Allegheny River upstream of the site and outside the study area. A total population of 4,400 is served by FFMWA. It is possible for FFMWA and STMWW to form a temporary emergency interconnection along Yuter Run Road approximately 0.6 mile northeast of the site.[1,33,36,45]

The township of East Deer maintains a distribution system within the developed portions of the township. All water is purchased from the Tarentum Municipal Water Works (TMWW). A population of 1,560 is served by East Deer Township.[36,46]

TMWW serves the borough of Tarentum and supplies water to East Deer Township. All water is drawn from a surface intake on the Allegheny River, upstream from the site. This intake is located about 4.5 miles northeast of the site. A population of 6,419 is served by TMWW.[1,33,36]

The Municipal Authority of the City of New Kensington (MACNK) serves the city of New Kensington, portions of lower Burrell Township in Westmoreland County, and portions of Plum Borough in Allegheny County. The source of water is a surface intake on the Allegheny River near mile point 20.8. This intake is located about 3.3 miles northeast and upstream of the site. A total population of 55,000 is served by MACNK.[1,34,47]

PBMA serves a small portion of the southeastern part of the study area. All water is purchased from MACNK, the Wilkinsburg - Penn Joint Water Authority (WPJWA), and MWA. The total population served by PBMA is 26,000. MWA purchases all its water from WPJWA and from the Municipal Authority of Westmoreland County (MAWC). MAWC draws all its water from surface sources that are outside the study area and receives no drainage from the site. WPJWA draws all its water from an intake on the Allegheny River near mile point 8.7. This intake is located about 7.1 stream miles downstream from the site. A total population of 250,000 is served by WPJWA.[1,33,34,36,48,49]

The city of Pittsburgh maintains an intake near mile point 8.1 on the Allegheny River as its sole source of supply. This intake is located approximately 7.7 stream miles downstream of the site. A total population of 424,000 is served by the city of Pittsburgh.[1,33,36]

The Millvale Municipal Water Works (MMWW) maintains an intake near mile point 3.4 on the Allegheny River as part of its source of water. This intake is located approximately 12.4 stream miles downstream of the site. A population of 4,850 is served by MMWW.[1,33,36]

Private domestic wells within the study area are expected to produce from the consolidated bedrocks that underlie the area. Of the 50 wells in or near the study area for which records are available, 21 wells were completed in consolidated bedrocks and 29 wells were completed in unconsolidated alluvial deposits. All 17 identified domestic wells were completed in the consolidated bedrocks. All alluvial wells and four of the bedrock wells were for public water supply, industrial, or commercial use.[38,50,51]

Of the 21 wells in the consolidated bedrock, 19 wells (more than 90 percent) were located in the Pennsylvanian age Conemaugh Group. These wells have median depths and yields of 118 feet and 2 gpm, respectively. The remaining two wells were located in the Pennsylvanian age Allegheny Group. The average depth of the wells was 165 feet, and 1 reported yield was 6 gpm. The 29 wells completed in the unconsolidated alluvial deposits have a median depth and yield of 64 feet and 400 gpm, respectively.[38,50,51]

The closest known wells with respect to the site are located approximately 2,000 feet north of the site, beyond the service area of STMWW and HTMA. The construction and production details of these wells are not known; however, based on the geologic maps of the area, these wells are most likely completed in the Pennsylvanian Conemaugh Group rocks.[1,2,36,38]

3.2 Surface Waters

The Watson-Standard Company is located approximately 9/10 mile north and approximately two miles west of the Allegheny River, which flows to the southwest.[1]

Several tributaries to the Allegheny River are located within one mile of the facility. Tawney Run is a tributary located approximately 1,000 feet east of the facility. This tributary flows 1.7 stream miles to the south to join the Allegheny River. It is unlikely that this tributary will receive surface water runoff from the facility because of the distance from the facility and similar topographic relief.[1]

A small tributary originating approximately 1,000 feet southwest of the facility flows southwardly approximately 0.87 stream mile to enter the Allegheny River. Site surface water is most likely to drain to the southwest from the facility into this unnamed tributary.[1]

According to PA DER water-quality standards, the unnamed tributary and Tawney Run are warm-water fisheries. The Allegheny River is also a warm-water fishery that is used for commercial transport of persons, animals, and goods.[52]

Palustrine wetlands greater than five miles are located seven stream miles downstream of the facility on the northern shore of the Allegheny River. No other classified wetlands are located within 15 stream miles downstream of the facility.[53]

3.3 Hydrogeology

The geologic and hydrogeologic conditions in the study area were researched as part of the site inspection. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil character, and the status of groundwater transport and storage.

3.3.1 Geology

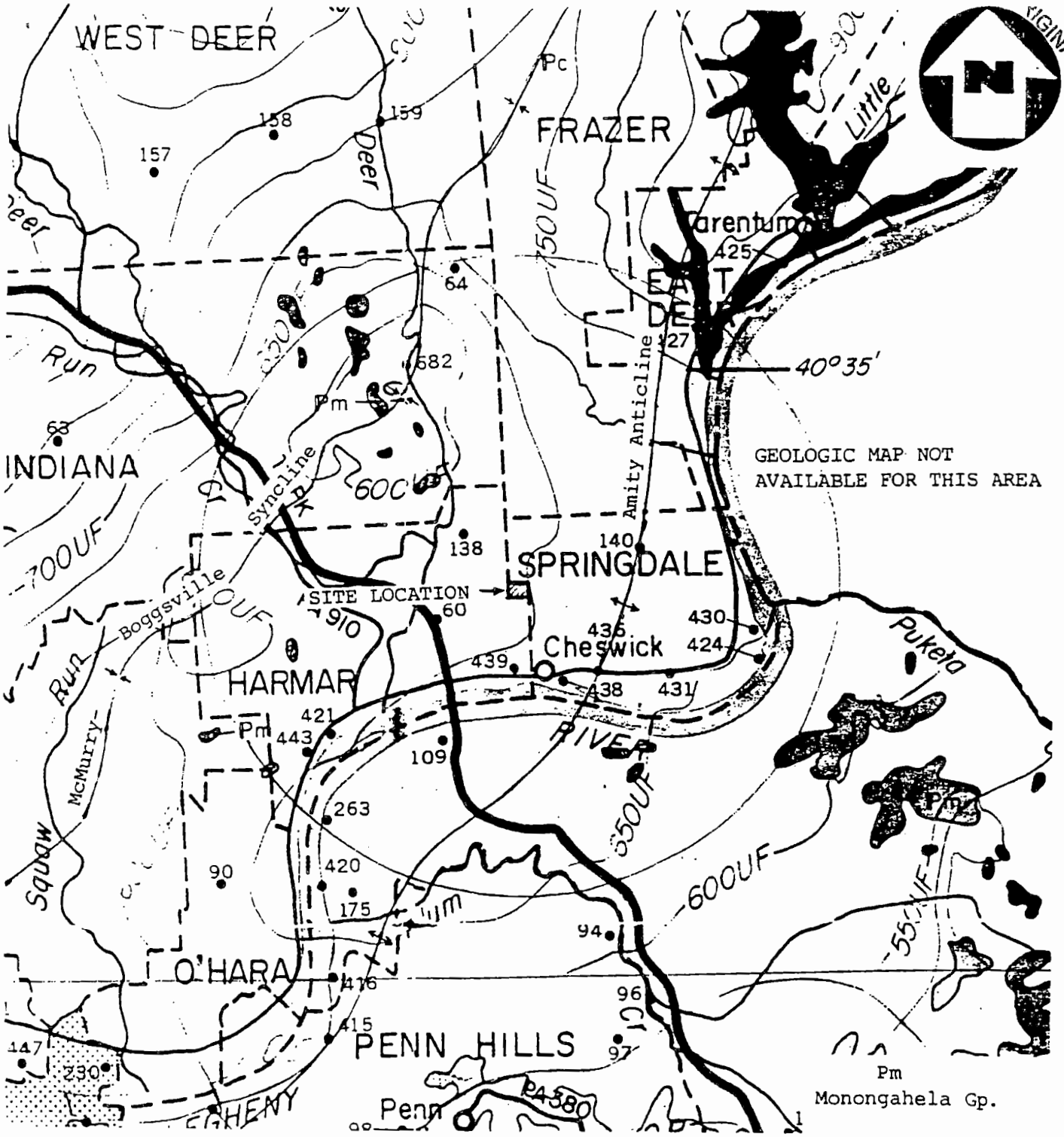
The site is located within the Pittsburgh Plateaus Section of the Appalachian Plateaus Physiographic Province. The topography of the area is that of a complexly dissected plateau now forming rounded hills and steep-sided valleys. Rivers and streams form a dendritic drainage pattern in the area. The study area is drained by the Allegheny River and its tributaries. The site is located on a nearby level bench of a hillside above the Allegheny River.[1,37,54]

The study area is underlain by a sequence of Pennsylvanian age sedimentary rocks. These have been folded into a series of low-amplitude, northeast-southwest-trending anticlines and synclines that have been superimposed on a broader regional structure of gentle southward dip. Portions of the major river and stream valleys have been partially filled with Quaternary age alluvial deposits. The site is located approximately one mile west of the axis of the Amity anticline and approximately two miles southeast of the axis of the McMurry-Boggsville syncline. Structural mapping indicates that the bedrock layers beneath the site dip gently to the west or northwest. Vertical or nearly vertical joints that strike primarily northeast or northwest are present in the rocks of this area.[38,52,55]

The uppermost bedrock underlying the site belongs to the Pennsylvanian age Conemaugh Group (see figure 3.1, page 3-7). The Conemaugh is a heterogeneous unit composed of alternating layers of sandstone, siltstone, and shale, along with lesser amounts of limestone, claystone, and coal. The characteristics of the sandstones vary greatly from fine to coarse grained, sometimes shaly or interbedded with shale, sometimes thickly bedded or massive, and sometimes locally conglomeratic. The coals and limestones are generally thin and non-persistent. Red beds are present mainly in the middle and upper part of the group. The Conemaugh Group averages about 500 feet in thickness.[38,52,55]

Stratigraphically underlying the Conemaugh Group at a depth of approximately 300 feet beneath the site is the Pennsylvanian age Allegheny Group. It consists of alternating layers of shale, sandstone, discontinuous limestone, and coal beds. Shale constitutes the greater part of the group. The sandstones vary widely in thickness, grain size, and degree of sorting. They can range from coarse-grained, massive, and locally conglomeratic to fine-grained, thin-bedded, sandy shale. Some of the coal beds are of mineable thickness and extent. The Allegheny Group has a maximum thickness of about 400 feet.[38,50]

Stratigraphically overlying the Conemaugh Group is the Pennsylvanian age Monongahela Group. It can be found capping the higher hills one mile or more to the northwest and about two miles or more to the southeast of the site. The Monongahela consists of alternating layers of fresh-water limestone, shale, siltstone, sandstone, coal, and clay. Limestones are the dominant rock type in the middle and upper sections of the group and are often interlayered with calcareous shales. Sandstones may be thick and coarse grained, particularly in the Pittsburgh sandstone near the base of the group, and may be finer grained or shaly elsewhere. Some coal horizons of mineable thickness and extent are present in the lower part of the group, especially the Pittsburgh coal at the base of the group. The Monongahela Group may reach a thickness of 300 feet; however, only the lower part of the group is expected to be present in the study area due to erosion.[38,54,55,56]



SOURCE: Gallaher, John T., Pennsylvania Geological Survey. Summary Groundwater Resources of Allegheny County, PA. Water Resource Report 35. 1973.

FIGURE 3.1

GEOLOGIC MAP
Watson Standard Co. Site
Allegheny County, PA.

NUS CORPORATION

Unconsolidated Quaternary age alluvial deposits are present, overlying the consolidated bedrock in the major river and stream valleys of the study area. These deposits are present within one mile south of the site, along and beneath the Allegheny River. They consists of clay, silt, sand, gravel, and boulders. The alluvium of the Allegheny River is largely glacial outwash gravel, sand, and clay and includes pebbles of crystalline rock transported from considerable distances north of the area. The finer material also includes deposits of local origin eroded from rocks within the existing drainage basin. These sediments range from well sorted to poorly sorted. The upper 0 to 25 feet is often recent alluvial fill of finer grained material. The thickness of the alluvium ranges from 0 feet along the valley walls to 80 feet or more. The average maximum thickness is 65 to 70 feet.[38,57]

3.3.2 Soils

The soils at the site are classified as Urban land - Rainsboro complex, gently sloping (see figure 3.2, page 3-9). This unit is found on terraces, with slopes of zero to eight percent. It is composed of about 75 percent Urban land, 15 percent Rainsboro soils, and 10 percent other soils. In the Urban land part, the natural soils have been cut from some places and used as fill in other places. Many areas are covered by buildings or other structures. The exposed cut and fill material is medium acid to very strongly acid (pH: 4.5 to 6.0). The permeability of Urban land is not quantified because the soil properties are often too variable to be estimated.[58]

Rainsboro soils are deep, nearly level to sloping, and moderately well-drained silt loams. They are found on old terraces that are as much as 300 feet above the present flood plain. These soils formed in old acid alluvium. The soil has a fragipan of slow permeability (less than 0.2 inch per hour) at a depth of approximately 26 inches, which results in a seasonal high water table of about 1.5 to 3 feet below the surface. Rainsboro soils are strongly to slightly acid (pH: 5.1 to 6.5).[58]

Eight shallow test borings were drilled in and around the underground storage tank area of the site. These borings provide additional information about the soils that underlie the site. The area of the site is characterized by a layer of fill materials underlain by a natural deposit of brown to gray, mottled, silty clay. In the underground storage tank area, the depth to the natural silty clay (and the thickness of the fill material) ranged from 11.8 to 12.5 feet. Outside the area of underground storage tanks, the depth to the natural silty clay ranged from four to six feet.[23]

Three distinct types of fill material exist at the site. The surficial material, ranging from 1 to 12.5 feet thick, is a brown silty fill with angular siltstone fragments. Another fill material present below the surficial material is a green-gray silt, with an occasional trace of sand. It was found ranging from five to nine feet thick. A third type of fill found in two borings is a black sludge-like material ranging in thickness from 5.5 to eight feet. This material may be the result of a septic tank leach field.[23]

The native soil beneath the fill is interpreted to be of an alluvial nature. It is a stiff brown to gray, mottled, silty clay, with an occasional trace of sand. Other borings 50 feet west of the underground tank area revealed native alluvial material from a depth of 1.5 to 20 feet. The material encountered was predominantly a silty, very fine sand, with a sandy silt layer occurring between 12 and 16 feet.[23,58]

3.3.3 Groundwater

Groundwater in the area occurs under water-table conditions and, where localized confining layers exist, under artesian conditions. Recharge of groundwater is primarily from the downward percolation of local precipitation through soils and rock to the zone of saturation. From this point, the water moves downward and laterally toward lower elevations and points of discharge, such as springs, stream channels, or wells. Groundwater is stored in and transported through primary intergranular porosity (in alluvium and some sandstones) and secondary porosity, such as fractures, joints, bedding-plane separations, and solution openings (in consolidated rocks). Water levels are at or near the land surface in valleys and are at greater depths on hills and drainage divides. Collapse and subsidence of coal mines have caused fracturing and dewatering of overlying aquifers in many areas, lowering water levels from their original depths.[38]

The Conemaugh Group, which underlies the site, is generally a good source of groundwater. The best water-producing units are the major sandstones of the group. They are rather persistent and water bearing throughout Allegheny County, with yields ranging from 1 or 2 to as much as 100 gpm. The shales and limestones are not as productive as the sandstones but often yield water supplies large enough for household use.[38,56]

Nineteen wells in the Conemaugh within or near the study area have depths ranging from 52 to 202 feet and a median depth of 118 feet. These wells have yields ranging from 0.1 to 25 gpm and a median yield of 2 gpm. The average static water level in these wells is about 32 feet below the surface; the average depth to consolidated bedrock is about 21 feet below the surface.[38,50,51]

The Allegheny Group is generally a good aquifer in areas where it is not present at too great a depth. When it occurs more than 100 feet below drainage level, the water is usually brackish or highly mineralized. The porosity is often moderate to good in the major sandstone units and is fair to poor in the other lithologies. Yields of 2 to 10 gpm and sometimes up to 50 to 75 gpm are possible from the major sandstone units of the group. The Allegheny Group is not a common or significant aquifer within the study area because of the depths at which it occurs.[38,55]

Data are available for two wells completed in the Allegheny Group within or near the study area. One of these wells has a depth of 80 feet, a yield of 6 gpm, a static water level 40 feet below the surface, and a depth to consolidated bedrock of 26 feet. Data for the other well report only a depth of 250 feet.[38,50,51]

The Monongahela Group is not an important aquifer within the study area because the rocks are rarely saturated due to the group's limited thickness and topographically high position. In many cases, it fails to yield enough water for domestic supplies. Some of the sandstone and limestone members, where saturated, are capable of small yields of less than one gpm up to about five gpm. The Pittsburgh sandstone near the base of the group may occasionally yield up to 30 gpm when it is encountered below drainage level.[38,56]

There is no record of any wells completed in the Monongahela Group within the study area.[38,50,51]

The unconsolidated alluvial deposits form the most productive aquifers within the study area. The sand and gravel units of the alluvium have relatively high porosity and permeability. At high pumping rates in wells, these deposits may gain additional water recharge from the adjacent river. Most of the wells within the alluvial deposits are used for municipal water supplies or for industrial purposes. These wells are typically 50 to 80 feet deep and have yields ranging from 50 or 100 gpm to over 1,000 gpm. The static water levels in the alluvial deposit wells usually range from 20 to 35 feet below the surface.[38,57]

Twenty-nine wells in the alluvial deposits within the study area range in depth from 38 to 84 feet, with a median depth of 64 feet. These wells have yields ranging from 15 to 3,280 gpm, with a median value of 400 gpm. The median static water level in these wells is 22 feet below the surface.[48,50,51]

Subsurface water was encountered in four of the test borings at the site at depths ranging from one to 8.6 feet below the surface. These water levels are interpreted to represent a localized condition resulting from the infiltration of surface water through the recently placed fill material in the excavated tank area and perching atop the silty clay alluvium that is consistent throughout the area. Data from area wells and the topographic setting suggest that the true water table is at a greater depth, closer to the 32-foot median depth of wells in the Conemaugh. No consolidated bedrock was encountered in the test borings that range up to 20 feet deep; therefore, the depth to bedrock is assumed to be in excess of 20 feet.[59]

Topographic control and the site's location with respect to the Allegheny River Valley suggest that the overall direction of groundwater flow around the site is to the south. Groundwater discharge is expected to be from the consolidated rocks into the alluvial valley fill deposits and then to the Allegheny River. The topography also indicates a possible westward component of groundwater flow from the site toward a small valley of an unnamed tributary of the Allegheny River. Groundwater discharge associated with a westward flow direction may be into this unnamed tributary.[1,38]

3.4 Climate and Meteorology

The subject site is located within the humid continental climate of the United States, extending between 35 and 60 degrees north latitude. This climate is modified slightly due to its proximity to the Atlantic Ocean and the Great Lakes.[59]

The data obtained are representative of Pittsburgh, Pennsylvania, which is approximately 10 miles southwest of the Watson-Standard site in Harwick, Pennsylvania. The average annual temperature for the site area is 50.4°F. The coldest month is January, with an average annual temperature of 28.1°F; the warmest month is July, with an average annual temperature of 71.9°F. The total annual average precipitation is 40 inches. The mean annual lake evaporation value is 28.5 inches, yielding a net annual precipitation of 11.5 inches. A 1-year, 24-hour rainfall is expected to produce 2.75 inches.[60]

3.5 Land Use

The Watson-Standard Company is located within the northeastern suburbs of Pittsburgh, Pennsylvania. The Allegheny River, which flows southwestwardly, is aligned northeast to southwest within the three-mile study area. The river is two miles east and one mile south of the facility. The Pennsylvania Turnpike is aligned northwest to southeast within the three-mile study area. It is located approximately 0.9 mile southwest of the facility.[1]

Within the three-mile study area, rural and low residential areas are located west, north, east, and southeast of the facility. Medium residential and light commercial and industrial areas are located northeast, south, and southwest of the facility.[1]

Several strip-mine areas are located within a two- and three-mile radius of the facility. A trailer park is located 1.75 miles west-northwest of the facility.[1]

3.6 Population Distribution

Approximately 40,584 people live within a 4-mile radius of the facility.[1,61]

0- to 1-mile radius:	5,123 people
1- to 2-mile radius:	3,045 people
2- to 3-mile radius:	13,724 people
3- to 4-mile radius:	18,692 people
Total	40,584 people

Population estimates were calculated using the Rand McNally Commercial Reference Map and Guide for Pennsylvania and the New Kensington West, Pennsylvania topographic quadrangle for house counts (multiplied by 2.6 persons per home in Allegheny County).[1,61]

3.7 Critical Environments

The bald eagle (Haliaeetus leucocephalus) and the peregrine falcon (Falco peregrinus) are two federally listed endangered birds expected to be found as transient species in the project area. No listed critical habitat exists for these species in the project area.[62]

4.0 WASTE TYPES AND QUANTITIES

A full RCRA evaluation of all the solid waste management units (SWMUs) was conducted during the EPI preliminary assessment site visit on January 17, 1990. For a description of the waste-handling practices, see the EPI preliminary assessment report (TDD No. F3-9001-04, January 17, 1990).[2]

Hazardous wastes generated at the facility have been classified by the facility as including the following EPA RCRA waste identification numbers: D001 (ignitable) and F003 (spent nonhalogenated solvents). The waste codes presented were derived from the facility's Part A Hazardous Waste Permit Application and PA DER hazardous waste inspection reports (see appendix C).[8,27,29]

The facility does not treat or dispose hazardous wastes at the facility. It is considered a small generator that stores wastes at the facility less than 90 days.[10] Nonhazardous wastes include office and paper wastes.[3]

The facility's January hazardous waste manifest was obtained by NUS FIT 3 during the January 17, 1990 EPI preliminary assessment.[2] Flammable solid wastes D001 (floor sweepings, solid drum resin scrapings) and F003 (rages and filters) were transported by ENSCO, Incorporated to its El Dorado, Arkansas facility to be incinerated. Approximately 1,978 pounds of D001 waste and 3,544 pounds of F003 waste were disposed on January 18, 1990.[63]

Flammable liquid waste paint-related materials F003 (xylol, MIBK, and naphtha) were transported by Delta Environmental to SolidTek Systems, Incorporated, in Morrow, Georgia, to be reused and incinerated. Approximately 4,380 gallons of F003 liquid waste were disposed on May 25, 1989.[63]

On October 16, 1990, NUS FIT 3 conducted an EPI site inspection at the Watson-Standard Company site. Surface and subsurface soil samples were taken. Sample results revealed lead (245 ppm), naphthalene (up to 2,000 ppb), 2-methylnaphthalene (up to 280 ppb), phenanthrene (190 ppb), bis(2-ethyhexyl) phthalate (up to 510 ppb), chrysene (up to 120 ppb), ethylbenzene (up to 98 ppb), and total xylenes (up to 27 ppb) in subsurface soil samples. Isophorone was detected up to 3,500 ppb in surface soil samples.[5]

5.0 FIELD TRIP REPORT

5.1 Summary

On Tuesday, October 16, 1990, NUS FIT 3 personnel Janis Hottinger, Paul Persing, Mary Williams, Thomas Ferrie, Randy Patarcity, Keith Hambley, and Anthony Benner conducted a site inspection at the Watson-Standard Company, located in Harwick, Allegheny County, Pennsylvania. The FIT was accompanied by Dan Eakin, regulatory affairs coordinator for Watson-Standard Company, and Gene C. Stuthers, a representative for the Environmental Resource Management, Incorporated (ERM) Group. Two PA DER solid waste specialists, Frederick W. Siekkinen and Barbara Davies, also briefly accompanied the FIT on site. ERM split samples with the FIT. Weather conditions during the site inspection were sunny and cool, with temperatures in the mid-to upper 50s.

Nine solid samples were collected, including an aqueous trip blank and duplicates (see figure 5.1, page 5-4). Photographs were taken at the site (see figure 5.2, page 5-7, and the photograph log, section 5.5).

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Michael A. Caruso, Jr.
Executive Vice-President
Watson-Standard Company
P.O. Box 11250
Pittsburgh, PA 15238
(412) 362-8300

Henry Watson
Owner
Watson-Standard Company
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Pittsburgh, PA 15238
(412) 362-8300

Dan Eaken
Regulatory Affairs Coordinator
Waston-Standard Company
P.O. Box 11250
Pittsburgh, PA 15238
(412) 362-8300

Lynnette Elser
Site Investigation Officer
U.S. EPA
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, PA 19107
(215) 597-8333

Robert Finkle
Solid Waste Specialist
PA DER
Highland Building
121 South Highland Avenue
Pittsburgh, PA 15206-3988
(412) 645-7100

5.2.2 At the Site

Michael A. Caruso, Jr.
Executive Vice-President
Watson-Standard Company
P.O. Box 11250
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(412) 362-8300

Frederick W. Siekkinen
Solid Waste Specialist
PA DER
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(412) 362-8300

Barbara Davies
Solid Waste Specialist
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121 South Highland Avenue
Pittsburgh, PA 15206-3988
(412) 645-7100

Gene C. Stuthers
The ERM Group
Gigliotti Plaza, Suite 208
20120 Route 19 North
Mars, PA 16046
(412) 772-1022

5.2.3 Water Supply Well Information

No home well samples were obtained because no domestic wells were located topographically downgradient of the site.

5.4 Site Observations

- HNU unit A had a background reading of 0.3 ppm.
- HNU unit D had a background reading of 1.2 ppm.
- The radiation mini-alert was set at the X1 position; no readings above background were recorded.
- An HNU reading of 15 ppm above background was recorded in the hole for auger sample S-2.
- HNU readings up to 4 ppm above background were recorded at several monitoring points from the pile of soil excavated from underneath the cement pad. Readings were not recorded from every monitoring point.
- The entire facility was secured by a locked gate and and fence; however, the entire acreage owned by the company was not entirely secured by a fence.
- A six- to eight-inch-thick concrete pad covers the former underground solvent storage tank area and the empty drum storage area located outside the western wall of the warehouse. The pad extends to the west for 64.7 feet and traverses the length of the building, approximately 200 feet.
- The concrete pad, originally designed to store empty drums, was constructed with an eight-inch concrete berm surrounding an area containing two sump pumps. This area is located at the warehouse and northwestern wall.
- Collected surface water was being pumped from the empty drum storage area onto the grass beyond the concrete pad. This water, white and foamy, soon dissipated in the grass.
- A second eight-inch concrete berm was designed on the southwestern portion of the concrete pad. This is a containment area for potential leaks and spills from raw material delivery trucks. One sump was located here.

- A large pile of soil was found outside the property gate on the edge of the slope that leads to the railroad tracks. This pile allegedly resulted from the excavation for the concrete pad installation. Much of the soil had been dumped over the edge of the slope.

PREPAREDNESS, PREVENTION AND CONTINGENCY PLAN

Watson Standard Company
Harwick, Pennsylvania
***WEG Project No.** FP-5647-41*

Prepared for:
Watson Standard Company
616 Hite Road
Harwick, Pennsylvania

July 22, 1998
Revision Date: December 20, 1999

Prepared By:
Weavertown Environmental Group Engineering
575 William Pitt Way
Pittsburgh, Pennsylvania 15238

1.0 EXECUTIVE SUMMARY

In order to satisfy the requirements of the Pennsylvania Department of Environmental Protection (PADEP) regulations, Title 25 Chapter's 262, 264, and 265, for commercial installations which have the potential for causing accidental pollution of air, land or water the following Preparedness, Prevention and Contingency (PPC) plan was prepared for the Watson Standard Company, Harwick, Pennsylvania facility. This PPC plan was developed in accordance with PADEP Guidelines #3600-BK-DEP1226 (Rev. 6/95), *Guidelines for The Development and Implementation of Environmental Emergency Response Plans,* and the United States Environmental Protection Agency (EPA) guidance manual, *Developing Pollution Prevention Plans and Best Management Practices,* EPA 832-R-92-006 (September 1992).

This PPC plan was written to address the following items:

- Identify the potential for causing accidental pollution of air, land, or water at this facility.
- Describe and ensure the implementation of practices which are used to prevent or minimize the accidental release of toxic, hazardous, or other polluting materials.
- Assure compliance with the PADEP Title 25 regulations and the Pennsylvania Clean Streams and Solid Waste Management laws. And,
- Utilize standard engineering practices in the preparation of this plan.

The Manager-Regulatory Affairs is the administrator of this PPC plan and is responsible for its implementation and maintenance. All affected employees of the facility are responsible for learning and following the procedures outlined in this PPC plan.

This plan will be fully implemented sixty (60) days from the date of authorization. The Plan Administrator will be responsible for implementing and monitoring all aspects of this plan. Reviews and revisions of this plan will be completed annually unless plan failure, facility changes or regulatory revisions necessitate otherwise.

Authorized for Implementation:

JPKoch

August 12, 1998

John P. Koch
Manager - Regulatory Affairs
Revision: 7/98

Date Implemented

2.0 PLAN REVISION RECORD

The following is a record of the revisions made to this PPC plan since the last date of plan implementation.

DATE	REVISION	SIGNATURE	COMMENTS
12/20/99	**Update telephone numbers and storage tank data**	JPich	

WF

3.0 ANNUAL PLAN REVIEW RECORD

DATE	REVISION	SIGNATURE	COMMENTS
12/9/99	Update telephone numbers and storage tank data	JP Koch	Reviewed by B. Frishof, J. P. Koch, and M. Radage

WF

4.0 FACILITY DESCRIPTION

Watson Standard Company, located at 616 Hite Road, Harwick, Allegheny County, Pennsylvania, manufactures industrial paints and coatings used in the metal decorating industry. Figure 1, "Site Location Map," illustrates the facility location and surrounding area. Figure 2, "Site Diagram," provides a schematic drawing of the site.

5.0 EXISTING EMERGENCY RESPONSE PLANS

The existing PPC plan for the Watson Standard Company was dated September 27, 1993. An Emergency Action Plan was developed in accordance with the Occupational Safety and Health Administration's regulations (Appendix A - *Emergency Action Plan, dated November 3, 1997*). These plans establish responsibilities and policies for response and subsequent activities relating to off-site releases of hazardous substances from this facility.

WF

6.0 MATERIAL AND WASTE INVENTORY

The chemical name, manufacturer, health and safety precautions and other pertinent information for significant materials maintained in inventory are contained in Material Safety Data Sheets (MSDS) (Appendix B - *Material Safety Data Sheets*) and are kept on file at the facility.

6.1 Material Inventory

The materials commonly stored on-site, their location (Figure 2), and maximum quantity stored are as follows:

Bulk Solvent Storage - Outdoor Tank Farm

Material	Tank Number	Tank Capacity (Gallons)	Material CAS Number
2-Butoxyethanol	T102	5,000	111-76-2
Methyl Isobutyl Ketone	T103	3,000	108-10-1
Solvesso 150 - Aromatic Petroleum Distillates	T104	3,000	64742-94-5
Isophorone	T107	5,000	78-59-1
Solvesso 100 - Aromatic Petroleum Distillates	T108	5,000	64742-95-6
Solvesso 100 - Aromatic Petroleum Distillates	T109	5,000	64742-95-6

WF

Bulk Resin Storage - Indoor Tank Room

Material	Tank Number	Tank Capacity (Gallons)	Material CAS Number
Acrylic Resin Solution	201	6,000	Mixture[1]
Melamine Resin Solution	202	3,000	Mixture
Acrylic Resin Solution	203	3,000	Mixture
Melamine Resin Solution	204	3,000	Mixture
Empty	205	3,000	NA
Polyester Resin Solution	206	3,000	Mixture
Polyester Resin Solution	207	3,000	Mixture
Polyester Resin Solution	208	3,000	Mixture
Polyester Resin Solution	209	3,000	Mixture
Epoxy Ester Resin Solution	210	3,000	Mixture
Epoxy Ester Resin Solution	211	3,000	Mixture

[1] Mixture consists of several CAS numbers in various quantities.
NA = Not applicable.

Warehouse Storage

Material	Type of Container	Number of Containers in Storage at Any One Time
Acrylic Resins	55 Gallon Drum	40 to 60
Alkyl Resins	55 Gallon Drum	10 to 20
Epoxy Resins - Drums	55 Gallon Drum	80 to 120
Isocyanate Resins	55 Gallon Drum	10 to 20
Polyester Resins	55 Gallon Drum	80 to 120
Miscellaneous Resins	55 Gallon Drum	40 to 60
Miscellaneous Esters	55 Gallon Drum	1 to 5
Miscellaneous Glycol and Glycol Derivative Solvents	55 Gallon Drum	20 to 40
Diacetone Alcohol	350 Gallon Tote Tank	0 to 4
Miscellaneous Hydrocarbon Solvents	55 Gallon Drum	20 to 40
Finished Product - Paint UN 1263	55 Gallon Drum	600 to 1,200

WF

6.2 Waste Inventory

The waste materials normally generated during manufacturing processes and their source of generation, approximate quantity and disposal method are as follows:

Material	Source of Generation	Storage Location	Approximate Quantity	Disposal Method
Spent solvents	Manufacturing operations	Warehouse	12-18 drums/ 2 weeks	Off-site disposal utilizing contractor
Residual and office wastes	Office, lunchroom, operations	Outside	1 dumpster/ 2 weeks	Landfill

ORIGIN

7.0 POLLUTION INCIDENT HISTORY

Prior to the implementation date of this plan, there have been no significant spills or leaks of toxic or hazardous materials at the facility.

W